



SAN BERNARDINO MICROWAVE SOCIETY, Incorporated

FOUNDED IN 1968

A NONPROFIT AMATEUR TECHNICAL ORGANIZATION DEDICATED
TO THE ADVANCEMENT OF COMMUNICATIONS ABOVE 1000 MC.

W6IFE Newsletter

September 2004 Edition

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At the **2 September** SBMS Meeting we will be Planning for the up coming second part of the 10 GHz and UP contest.. The SBMS meets at the American Legion Hall 1024 Main Street (south of the 91 freeway) in Corona, CA at 1900 hours local time on the first Thursday of each month. Check out the SBMS web site at <http://www.ham-radio.com/sbms/>.

SBMS meeting parking- We have become a great number of members at meetings. We park next to the church in the adjacent lot or on the street and or in the lot across the street. Across the street the sign on the building shows: 1025 Main Street. MAIN STREET BISTRO. The sign on the parking lot says: CLIN CHIROPRACTIC CARE Dick, WB6DNX

A reminder that the third Saturday of each month is Microwave Activity Day starting after the Pomona/ Cal Poly Swap meet through mid afternoon.

Last meeting- There was lots of discussion on where everyone was going for the ARRL 10 GHz and Up contest. Mel, WA6JBD was to post the plans on the SBMS reflector as new plans were sent to him. Art Goddard, W6XD, ARRL Southwestern Division Director, spoke on BPL and indicated test sites in San Diego and Anza as well as Cottonwood, AR. Art also indicated that there would be an election for Southwestern Director in October. Welcome to returning member Ed Cole, AL7EB of Nikiski Alaska and welcome to new member Jeffery Pawlan, WA6KBL of San Jose, CA. Ron Phillips, AE6QU from Laguna Woods was our visitor. A contact person for Vectron oscillator information is Nelson Estrella 888-328-76661 x 414. 25 people present.

Scheduling.

11-12 September ARRL September VHF QSO Party

18-19 September ARRL 10 GHz and Up Contest

14-16 October 2004 Microwave Update in Texas

"Wants and Gots for sale"

Want WR75 to SMA or N transition and WR75 to WR90 transition John KJ6HZ 909-683-1434

Want six runs of 7/8th inch hardline 100 ft each Mike W6YLZ 818-349-8525

First half of the ARRL 10 GHz and Up contest -SBMS member data so far.

It was noted by **Bill, WA6QYR** while roving that most of this years contest seemed to be in the San Joaquin Valley. Rovers from both the Northern and Southern California areas were running the valley with few fixed station on the hilltops. In years past, the rover path was up and down the west coast with the stations in Mexico. Now the rovers could work the Mexico stations over the California hills. A large number of contacts were made over the 1 MKm distance.

From San Diego I worked Chip, N6CA in Sacramento and Ron, K6GZA on Sutter Buttes, the latter 510 miles. Also got a long contact with Miguel, W6YLZ in Mexico at 704mi. I found a place north of San Benito Mountain in the coastal range on the Valley side. **Frank, WB6CWN**

These are the best DX QSO's that I worked this past weekend....

1. Worked WA6CGR in CM95 xv & N6RMJ ...1028 km from DL 27 PT
2. Worked N6CA in DM06 cf1049 km from DL 27 PT
3. Worked N6RMJ in DM05 as....1024 km from DL 27 RS
4. Worked WA6CGR in DM 06 bg...1060 km from DL27 RS
5. Worked N6CA in DM05 cw....1033 km from DL 27 RS
6. Worked N6CA in DM05 fw1021 km from DL 27 RS

7. Worked WA6CGR in CM96 xc...1060 km from DL27 RS

8. Worked WB6CWN in CM96 om.....1135 km from DL27 RS

Previous personal best was 1100 km with WA6CGR 2 yrs ago from DL27 tm. Hopefully, I can improve some more next month...de **Mike....XE2/W6YLZ**

My best DX on the first weekend was Frazier DM04ms to:

DL27MS 883 KM Baja Sunday

DL27PT 872 KM Baja Saturday

CN90FL 672 KM Mt Lassen

CM99CE 550 KM Sutter Butte

The Lassen QSO is all over land and a tuff path Sutter Butte is a GREAT spot, GZA was a reference beacon for 2 days **Robin, WA6CDR**

Hi, I was not able to make up to the top of Corey Peak Saturday and was stranded in the canyon without Cell Phone access or any repeaters to get word out. Better luck next time! 73, **Chuck WA6EXV** (Chuck did with the help of a tow truck make it off Corey which had been through a rain storm and had slick muddy road. Casino in Hawthorn, NV took the edge off the poor weekend. Ed)

Hi Guys,

Well this last weekend was a bust as far as working to the west from Harquahalla and I'm truly sorry for the hope and patience that you guys put out for us, especially Robin.

It probably started with some of my well-known procrastination and not allowing enough time for getting projects finished. You'd think that this wouldn't be a problem after 35 years as project and program manger experience in the aerospace industry. But as you get older, things seem to take 3 to 4 times as long as you think that they should. Living 45 miles away from an electronics store and over 100 miles from any kind of electronic surplus changes your design thinking a bit as well as component choice. Also designing (mechanically as well as electrically) to take equipment out into the field and up a road as rugged as Harquahala's, requires techniques such as; lock washers under every screw and bolt (using at least half again as many as home ham projects), using mechanical joints as well as solder (no tack solder connections), lacing tie wrapping or taping and cable clamping all wire/cable runs. Probably because of my NASA and AF project experiences I tend to over design and build too robustly, HI.

The Space Ball project took longer than I planned, but I got it accomplished and learned some "not to do's" (available later to those that are interested). The 30" offset Prodelin dish was mtd to it. The feed that WA6EXV made for me a couple of years ago was attached to the "circular" WR-90 W/G, which ran to the back of the dish. My converter box and 10 W PA, as well as their PS's were mtd as counter weights behind the dish on the Space Ball mt. Unfortunately the wx and shortage of time didn't allow me to set up a test range and test/adjust the antenna/feed arrangement before packing to get on the road. I was supposed to leave Oracle by noon Friday, in order to make it up the hill before dark. About that time my travel partner, Jon W5WVI, who lives in Mesa, called and said that the TV noon news said that there was a lightning induced fire on Haraquahala the night before that was endangering the structures up there. There's not a lot to burn up there except grass and scrub

brush and I wasn't too worried, except that the BLM might try and prevent us from going up the road. Well we decided to take the chance anyway (we had no plan "B"), and I finally left Oracle by 1530 and met Jon on I -10 in west PHX about 1730 (height of the 5 PM traffic). We got to the base of the mtn just at dark and saw no road blocks, so I didn't give Jon a chance say no to going up that horrible road in the dark. To his credit, Jon did an outstanding job in following me up in his 4WD Explorer; I know he'd never driven a road that bad before, let alone in the dark!! We finally got to the top about 2030 (over 1 1/2hrs for 10 mi.) and were able to temporarily park in the general vicinity that we were going to operate. We then unloaded all our equipment so we could sleep in the vehicles. In the dark we didn't see or smell any wildfires so we assumed that the fire was further down another ridge. The next AM we got up and in a couple of hours got all the equipment sorted out and set up. I'm a cell phone newbie, Jon has never operated one, and I couldn't get mine to connect to the outside world - although it said that there was enough signal strength?? I'd brought manuals for all the equipment including the GPS and PDA but not for the Motorola cell phone! We never did get a cell connection all W/E!?? I had several minor Murphy's before I got my big rig running. Jon had never operated 10 GHz in the field, and very seldom from home. After a couple of tries with stns to the west with no results, I finally set up an impromptu antenna range using a horn and the driver from my backup rig, set up about 150' away, and adjusted the focus and the polarity (after all the 90 degree angles of the 3/4" copper pipe W/G run). The as built positions didn't appear to need much adjustment! Our frequency calibration turned out to be pretty close, as measured by my Systron Donner 6245 counter, and later verified by WA8ULG. Late in the afternoon we confirmed our compass accuracy by observing the Sun's AZ (provided by the Sun/Moon tracking program in my PDA). Coincidentally the sun set exactly at 283 degrees, the calculated heading to Frazier!!

It turned out our only communications back to the PHX area turned out to be 2M SSB as W7GBI doesn't have a 440 rig, and the cell phone we were to call him on didn't work. Jon finally worked him near dusk - Charlie had to point off at 90 degrees from true, as Camelback Mtn blocks him to the west. We finally got WA7CJO on (via at telecon from GBI), but for some strange reason we could not make a contact - with his 300 W to his gnd mtd EME dish it's never been a problem before. For some strange reason I couldn't hear Charlie or Jim and neither of them me. So for Sunday, I decided to use my old faithful back up rig - 1 W to 18" offset.

Our 9 AM sked with Charlie, W7GBI, was successful for me and also again for Jon. We talked to Ted, WA8ULG, on 2 M SSB, who was operating from his new summer home in Parks (abt 20 mi. SW of Flagstaff). He turned on his beacon of 3 W and pointed it's dish our way. It was copied S9 by both of us and followed up with SSB contacts with him on his barefoot DB6NT. Another try with WA6CDR, on Frazier, at this time was still unsuccessful. We were hot, dry, sunburned and frustrated by this time and I had at least a 6 hour drive home, so we packed up and left about 1300 and made a uneventful trip down the mtn - which looked much steeper and more eroded in the daytime, HI.

BTW, late Saturday we finally had a chance to look around the area and discovered that the fire had burned to within 200 yds of our site at the top of Harquahala. We met two BLM wildland fire fighters, who drove up Saturday, and they say that the fire fighters had declined to come up the hill Wed PM, but had used choppers for water drops and that later ferried a cleanup crew to the top. Well I think that Jon really enjoyed the trip and outing (as I always do) and would be for doing another one some time. I think and hope that I've converted him to a mountain topper! I don't know but as the equipment gets smaller, I seem to carry a bigger and bigger load!! The Space Ball AZ/EL rotator worked out pretty good, and being able to adjust the AZ speed infinitely slow was an advantage. Sorry to be so long winded and I know that most of you have had many of the same experiences, but maybe you'll get a few chuckles from ours, to all GL es 73.**Chuck, W7CS**

Received this letter from **Gordo, WB6NOA**. He has some interesting ideas here. Your thoughts? Mel - WA6JBD

August 24, 2004

Congratulations go to all of the San Bernardino Microwave Society members who truly "went the distance." Those dedicated members did a fabulous job, and for those of us "part-timers" on 10 GHz, we had plenty to learn!

For Part 2 of the contest, please show me on Signal Peak, in Orange County, DM13CO. What I learned in this past weekend's contest was the need for "fixed" stations to stay around continuously for all 2 days in order to provide additional points to the hardworking rovers. We may need to promote this aspect of the microwave contest MORE to those of us who are not on regularly--the fact that modest fixed stations on the air for both days can dramatically add to the fabulous scores of those working hard out in the field stopping every 10 miles. So count me in for the next Part 2 weekend up on Signal Peak.

The second thing I learned was to get the word out to "part-time" 10 GHz enthusiasts (like me) the importance of not only working the long-range strong station, but making every effort to work those additional smaller or lower power stations up on the same mountaintop so the whole TEAM makes a contact. I was very impressed with the Mexico crew as well as the Kettleman gang on how the strongest station would help get the team contact going, and then the other stations up on the hill would take their best shot to get back to those of us fixed here in Southern California. A true team spirit!

Although I am member of SBMS, I didn't see any posting on the website of who was going to be where. It wasn't until a couple of days before the event that I started making contact with other SBMS members, finally getting your valuable list. Mel, should we maybe get this list posted on a website so those from the "outside" can see all of the effort that San Bernardino Microwave Society members put in on this two weekend contest?

Finally, for most of the SBMS operators, I know these observations I've just made sound more than OBVIOUS. But for those of us just dabbling in this fascinating 10 GHz world, we want to be able to better support the members who drive hundreds of miles to set up their portable stations, and some additional guidance might help up everyone's score if we know what the dedicated testers are looking for when it comes to a reliable fixed station back in the L.A. basin. Gordon West, WB6NOA

Hello Microwavers, The results are now posted for the MDS/ERP tests made at the July 10th SBMS/SDMG Picnic. To see them, go to: www.ham-radio.com/sbms/sd/ then scroll down to the MDS/ERP Link. 73s Ed, W6OYJ

MICROWAVE UPDATE 2005

Chairman: Pat Coker, N6RMJ of SBMS

Planning Committee: Pat Coker, N6RMJ of SBMS

David Peters, KI6FF of WSWSS

Dennis Kidder, WA6NIA of SBMS

Presentations: Chip Angle, N6CA

PRIZES: Dave Glawson, WA6CGR

Registration: Dick Kolbly, K6HIJ

Location: Cerritos Sheridan

List of Presentations:

SBMS 50 YEARS Dick Kolbly, K6HIJ

RESULTS OF THE 2004 2GHZ AND UP WORLD WIDE CLUB CONTEST

SPONSORED BY THE S.B.M.S.

SAN BERNARDINO MICROWAVE SOCIETY

CLUB ENTRIES SCORE

2003 2004

SAN BERNADINO MICROWAVE SOCIETY 16 16 48,275

Front Range Microwave Society of Colorado 00 10 32,375

Mt Airy VHF CLUB "PACKRATS" 08 10 25,714

SAN DIEGO MICROWAVE GROUP 07 07 17,674

MIDWEST VHF UHF SOCIETY CLUB 04 00

These were the only logs I received; we lost one club but gained another I hope there is more participation next year any suggestions comments please contact N6RMJ@sbcglobal.net **N6RMJ PAT** DM14cp

below: Last meeting Chip, N6CA carried in parts to the new 10 GHz beacon/ transverter to be placed in Hawaii along with a 4 ft off set feed dish. Chip had a few more tweaks to do on the rig before shipping off to Paul, KH6HME. The rig included a TWT power amplifier and low noise amplifier that made it an "across the ocean class rig" for every one to work the 2300 miles to Paul.



below: From a top of Mount Frazier on the first weekend of the ARRL 10 GHz and Up contest was Robin, WA6CDR with his 6 ft dish and rig mounted on the back (right side of photograph) as counter weight. In the back of his vehicle was the HF IF rig, keyer, computer for pointing angles and misc. radio equipment. Robin was in a position to work most people to the bay area and as far as Mexico to the south.



below: Also on the top of Frazier was Frank, W6QI from the San Jose area with his advanced technology 10 GHz rig that was really portable. With camp chair, backpacking stove and vehicle full of camping gear, Frank was well equipped to spend the weekend on the mountaintop. Frank managed to work both 10 GHz and 124 GHz with this one rig. He also had a very nice 47 GHz transverter to slide into the tripod shoe following an alignment with both 10 and 24 GHz contacts. Apparently the station on the other end suffered a TWT problem on his 47 GHz rig so that contact was not complete.



below: Bill, WA6QYR had his rover rig set up to where he could just pull out the pole and slide it into the new under bumper mount. The dish would sit upon the pole along with the transverter. In the back of the pickup was the two meter IF radio and batteries that could be recharged while moving to the next site.



Activity reported at the August SBMS meeting: Chris, N9RIN has his 10 GHz rig working; Mike, W6YLZ is still looking for pieces to his rig; Dave, WA6CGR has fixed his IF radio; Pat, N6RMJ fixed his 2.3 GHz radio and the 5.4 GHz rig is working; Glenn KE6HPZ did some work on the Tehachapi repeater; Peter, K6PTL has all

the parts to assemble a 10 GHz radio; Chip, N6CA is fixing the Palos Verdes beacon and has parts to show for the Hawaii 10 GHz beacon; Larry, KG6EG has been out looking at contest sites; Wayne KH6WZ making improvements to the 10 GHz rig; Bob, WA6VHS has a new IF radio; Dennis, WA6NIA was having transmit problems in his 10 GHz rig; Jeff, KN6VR was repackaging his 10 GHz radio; Bill, WA6QYR just returned from a 5200 mile trip to Chicago; Chuck, WA6EXV has his 10 GHz rig working; Frank, WB6CWN was working on rebuilding YLZ rig; Dick, WB6DNX was ready with his 10 GHz rig; and Mel, WA6JBD had his new 10 GHz rig running.

73's Bill

below: Wayne, KH6WZ out on Secret Site 51 DM04ti trying to stay warm in the wind as well as holding up the dish and rig during the second half of the ARRL 10 GHz and Up contest.



The San Bernardino Microwave Society is a technical amateur radio club affiliated with the ARRL having a membership of over 90 amateurs from Hawaii and Alaska to the east coast and beyond. Dues are \$15 per year, which includes a badge and monthly newsletter. Your mail label indicates your call followed by when your dues are due. Dues can be sent to the treasurer as listed under the banner on the front page. If you have material you would like in the newsletter please send it to Bill WA6QYR at 247 Rebel Road Ridgecrest, CA 93555, bburns@ridgecrest.ca.us, or phone 760-375-8566. The newsletter is generated about the 15th of the month and put into the mail at least the week prior to the meeting. This is your newsletter. SBMS Newsletter material can be copied as long as SBMS is identified as source.

San Bernardino Microwave Society newsletter

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USA

